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OFFICE OF  
ENVIRONMENTAL  
CLEANUP

JUL 20 2017

**MEMORANDUM**

**SUBJECT:** No Further Five-Year Reviews for the Vancouver Water Station #4 Contamination Superfund Site, Vancouver, Washington; EPA ID: WAD988475158

**FROM:** Michael J. Szerlog, Acting Program Manager *mjs*  
Remedial Cleanup Program  
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**TO:** Ronnie Crossland, Acting Director  
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Office of Superfund Remediation and Technology Innovation

Purpose

The purpose of this memorandum is to document why the U.S. Environmental Protection Agency (EPA) will no longer be conducting five-year reviews (FYRs) at the Vancouver Water Station #4 Contamination Superfund Site (Site) and to request that the Office of Superfund Remediation and Technology Innovation (OSRTI) remove from SEMS the policy FYR due in FY 2018 for the Site.

Background

The Vancouver Water Station #4 Contamination Superfund Site is a public water supply wellfield in the City of Vancouver, Washington and is located approximately ½ mile north of the Columbia River. The Water Station #4 (WS4) wellfield encompasses approximately ½ acre and includes six production wells, two air stripping towers, one capped well and several support buildings. Groundwater is pumped from approximately 200 feet below ground surface and blended with water from several other wellfields to provide drinking water to approximately 230,000 people in the Vancouver region.

In 1988, pursuant to Safe Drinking Water Act (SDWA), the City of Vancouver (City) began monitoring volatile organic compounds (VOCs) in water supplied from all of its water stations. These tests found tetrachloroethylene (PCE) to be present in several of the WS4 wells at levels above the maximum contaminant level (MCL) established under the SDWA. In response, the City ceased pumping at several of the WS4 production wells and limited production at other wells such that the water distributed to customers remained below the MCL of 5 micrograms per liter (µg/L). In 1992, the City began installed two air stripping towers to treat the groundwater prior to distribution.

Starting in 1989, the City and EPA conducted several investigations into the source of PCE at WS4 including sampling of private wells, nearby surface waters and industrial sumps; conducting soil gas surveys and inspecting local dry cleaners and other places of business where PCE may have been used. In 1992, the PCE concentrations suddenly increased, peaked at 520 µg/L in 1993 and then decreased over

the next several years. Although multiple sources of PCE (e.g., dry cleaners) were located, no source was identified as primarily responsible for the sustained high concentrations or for the 1992 spike in PCE concentrations. EPA concluded that there was not an on-going source of PCE.

A baseline risk assessment completed by EPA quantified potential carcinogenic risks to future residents consuming untreated water ranged from  $5 \times 10^{-6}$  to  $2 \times 10^{-5}$  cancer risk or 5 to 20 excess cancers in 1,000,000 people) and non-cancer risk from a hazard index of 0.02 to 0.2. While this level of risk is within the National Contingency Plan (NCP) acceptable risk range, EPA found it was necessary to take action at WS4 because the groundwater had been shown to have persistent concentrations of PCE above the MCL. On July 29, 1991, EPA proposed WS4 for listing on the National Priorities List (NPL) (56 FR 35840). The NPL listing for the site (WAD988475158) was finalized on October 14, 1992 (59 FR 47180).

A September 1, 1999 Record of Decision (ROD) required pumping at WS4 at a rate consistent with customer demand (up to 4000 gallons per minute), treatment of the water using the existing air stripping system and distribution of the treated water to customers as drinking water. The selected remedy also included monitoring of the water extracted from each monitoring well as well as the treated drinking water supplied to customers. The remedy did not include any source control actions.

Monitoring of PCE levels in the groundwater and drinking water has been performed by the City. A 2017 review indicated that PCE concentrations at all wells were below 3 µg/L and had been below the MCL of 5 µg/L since October 2011. Based on this evaluation, EPA determined that the cleanup goals had been achieved at all wells, that all remedial activities at the Site were complete and that no further CERCLA remedial actions were required.

A Preliminary Close Out Report documenting the completion of construction activities was signed by EPA on September 8, 1999. The Site was identified as "Sitewide Ready for Anticipated Use" on March 11, 2014. A Final Close Out Report documenting completion of all remedial activities was signed by EPA on June 12, 2017.

#### Five-Year Review Requirement

Three policy five-year reviews have been completed at the Site, the last one in September 2013. No issues or follow-up actions were identified during the 2013 Five Year Review. The protectiveness statement stated that the remedy at Vancouver WS4 was "protective of human health and the environment because the treatment system is functioning as intended and human and ecological risks are under control. Long-term protectiveness of the remedial action will be verified by regular monitoring by the City of Vancouver."

#### Rationale for No Further Five-Year Reviews

The EPA Region 10 will not be conducting a fourth FYR because the groundwater at all wells at the Site have attained the ROD cleanup goal for PCE of 5.0 µg/L. As documented in the 2017 Final Close Out Report, the Remedial Action Objectives (RAOs) for the remedy have been achieved and there are no hazardous substances, pollutants or contaminants that remain above levels that could prevent unlimited use and unrestricted exposure (UU/UE). Therefore, no further five-year reviews are required.

## Conclusion

The June 12, 2017 Final Close-Out Report documents that the implemented remedy achieves the Remedial Action Objectives (RAOs) and the degree of cleanup or protection specified in the ROD for all pathways of exposure. All selected remedial and removal action objectives and associated cleanup levels are consistent with agency policy and guidance and no further Superfund response is needed to protect human health and the environment. In addition, there is no longer waste left on-site above levels that allow for UU/UE. Therefore, the EPA Region 10 has determined that no further FYRs are required and requests that the policy FYR due in FY 2018 for the Vancouver Water Station #4 Contamination Superfund Site be removed from SEMS.

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